

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK**

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ADVANCED VIDEO TECHNOLOGIES LLC,	:	
Plaintiff,	:	Case No. 1:11-cv-8908 (CM)
vs.	:	
RESEARCH IN MOTION LTD., and	:	
RESEARCH IN MOTION CORPORATION	:	
Defendants.	:	
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**RESEARCH IN MOTION LTD. AND RESEARCH IN MOTION CORPORATION'S
OPENING CLAIM CONSTRUCTION BRIEF**

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Defendants Research In Motion Ltd. and Research In Motion Corp. (collectively, “RIM”) respectfully submit this brief in support of their proposed constructions of the disputed terms in U.S. Patent No. 5,781,788 C1 (“the ‘788 patent”) asserted by plaintiff Advanced Video Technologies LLC (“AVT”).

I. INTRODUCTION

During three years of original Patent Office proceedings, and again during *ex parte* reexamination, the applicants for the ‘788 patent (“Applicants”) narrowed the claims multiple times, through amendments and arguments, to avoid prior art rejections made by the Patent Office and to obtain claims covering their purported invention. AVT, a purchaser of the ‘788 patent, is trying to use the claim construction process to recover subject matter surrendered during prosecution. The law does not permit such an attempt. AVT is bound by the representations and disclaimers made to the Patent Office.

The Court should adopt the claim constructions proposed by RIM, which closely track the relevant intrinsic evidence—the claim terms, patent specification, and original and reexamination prosecution history.

II. THE LAW OF CLAIM CONSTRUCTION

Claim construction is a question of law for the Court. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 977-98 (Fed. Cir. 1995) Claim terms are to be given their customary meaning as understood by a person of ordinary skill in the art when the application was filed. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc). A court should derive this meaning by reviewing the claim language, patent specification, and prosecution history. *Id.* at 1312-13. The patent specification, including the language of the claims themselves, “is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best

guide to the meaning of a disputed term.” *Vitronics Corp. v. Conceptiontronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996).

The prosecution history, including all of the correspondence between the applicants and the Patent Office, “can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be.” *Id.* at 1317 (citations omitted). A patent applicant’s representations to the Patent Office are binding; a court “cannot construe the claims to cover subject matter broader than that which the patentee itself regarded as comprising its invention and represented to the PTO.” *Microsoft Corp. v. Multi-Tech Sys. Inc.*, 357 F.3d 1340, 1349 (Fed. Cir. 2004). In particular, “explicit statements made by a patent applicant during prosecution to distinguish a claimed invention over prior art may serve to narrow the scope of the claim.” *Spectrum Int’l, Inc. v. Sterilite Corp.*, 164 F.3d 1372, 1378 (Fed. Cir. 1998); *see also Standard Oil Co. v. Am. Cyanamid Co.*, 774 F.2d 448, 452 (Fed. Cir. 1985) (“[T]he prosecution history . . . limits the interpretation of claims so as to exclude any interpretation that may have been disclaimed or disavowed during prosecution in order to obtain claim allowance.”). Patent applicants limit their claims during prosecution by making arguments to the Patent Office, with equal force as if they explicitly amended the claim language. *Cordis Corp. v. Boston Scientific Corp.*, 658 F.3d 1347, 1357 (Fed. Cir. 2011) (“[a]rguments made during the prosecution of a patent application are given the same weight as claim amendments”) (citing *Elkay Mfg. Co. v. Ebco Mfg. Co.*, 192 F.3d 973, 979 (Fed. Cir. 1999)).

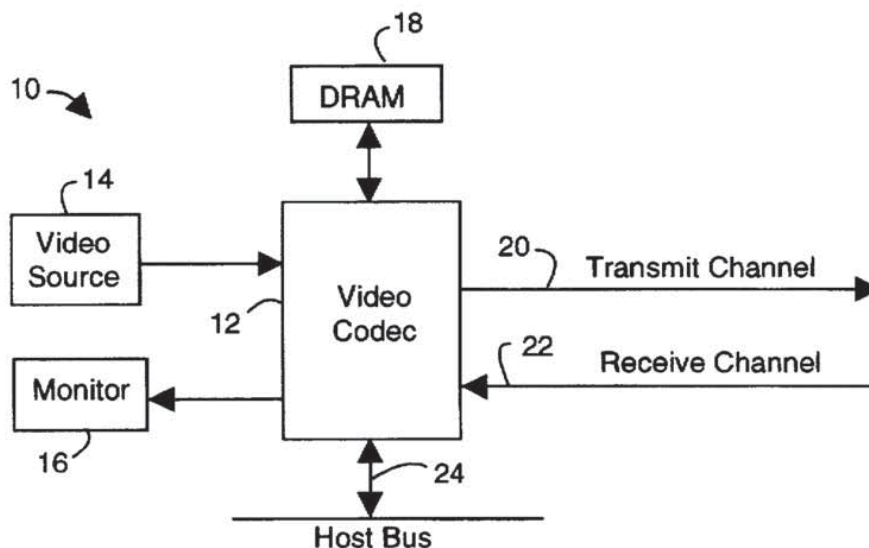
A court may consider extrinsic evidence, such as dictionaries and treatises, when the intrinsic evidence is insufficient to ascertain the meaning of a claim. *Phillips*, 415 F.3d at 1317-18.

III. THE '788 PATENT

A. Background of the Technology

The '788 patent relates to the use of a single semiconductor chip that includes both a video *coder* for compressing video information and a video *decoder* for decompressing video information. A combined coder/decoder is known as a “codec”. The '788 patent describes using an external dynamic random access memory (“DRAM”) for storage in connection with processing analog video signals from a video camera and displaying video on a monitor.

Figure 1 of the '788 patent illustrates the structure of this single chip:



The claimed video codec chip digitizes analog signals from a video source, so that each picture element (or “pixel”) is translated into digital information. Digitized video information consists of a series of “frames,” each of which “can comprise close to one million pixels.” (Mehta Exh. A at 1:27-28).¹ Digital video frames can be displayed rapidly in succession (*e.g.*, at 30 frames per second) to create the perception of motion. For every second of a video, “close to thirty

¹ Citations of the form (xx:yy-zz) refer to line and column numbers of the '788 patent, attached as Exhibit A to the accompanying Declaration of Erin Greenfield Mehta (hereinafter, “Mehta Ex. —”).

million pixels per second would ordinarily need to be transmitted from a video camera to a monitor.” (Mehta Ex. A at 1:29-31).

When Applicants applied for the ‘788 patent, video compression was a well-known technique used to reduce the amount of data comprising a video. Video compression and decompression techniques were included in industry standards, such as H.261, which Applicants had no role in creating. (Mehta Ex. A. at 1:41-64 and Figures 6-7). The H.261 standard, for example, includes the well-known prior art techniques of “quantization” and “inverse quantization” referred to in the claims of the ‘788 patent. (*See* Mehta Ex. A at 14:10-28).

The video codec chip of the ‘788 patent captures video signals from a “Video Source” and buffers video information in DRAM – memory “commonly used for storage of information such as video data.” (Mehta Ex. A at 3:43-45 (“A separate dynamic random access memory (DRAM) 18 provides storage for incoming and outgoing video data.”)). The video codec chip then compresses the video information buffered in the DRAM and sends the compressed video information through a “transmit channel.” (Mehta Ex. A at 3:46-49). Conversely, to perform decompression, previously compressed video information is received from a “receive channel.” The “video codec” chip decompresses the compressed video information, buffers the decompressed video in DRAM and sends it to a “monitor” for display. (Mehta Ex. A at 3:47-52).

B. Reexamination

The ‘788 patent underwent *ex parte* reexamination filed by the patent owner. During the reexamination, the Patent Office finally rejected and cancelled several of the original claims. The remaining claims were narrowed by the Applicants through arguments and amendments required to overcome prior art rejections made by the Patent Office. The reexamination

concluded with the issuance of an Ex Parte Reexamination Certificate dated January 8, 2008.

The remaining independent claims are 5, 6, 7, 13, 23, 25 and 26.

IV. DISPUTED CLAIM CONSTRUCTION TERMS

In accordance with the Court's March 30, 2012 *Markman* Order, the parties exchanged a list of terms to be construed on May 25, 2012 and a list of proposed constructions on June 8, 2012. A list of disputed claim constructions was filed with the Court on June 22, 2012.

A. "dedicated hardware logic" (Claims 5, 13, 23)

'788 Claim Term	RIM's Proposed Construction	AVT's Proposed Construction
"dedicated hardware logic"	"integrated circuitry for performing specific tasks (e.g., DCT/IDCT), as opposed to a general-purpose processor"	"specific integrated circuitry or circuit elements for the purpose of performing video compression and decompression"

The parties dispute whether "dedicated hardware logic" requires circuitry for performing specific video codec tasks (RIM), or whether it may include general-purpose processors capable of performing video codec functions (AVT). RIM's proposed construction properly constrains the scope of the claims to the scope of the alleged invention, as defined by Applicants during prosecution.

The term "dedicated hardware logic" appears in the context of hardware responsible for performing particular mathematical functions:

Wherein the video compressor/decompressor includes ***dedicated hardware logic*** which performs forward discrete cosine transforms on the video information received from the video input connection and wherein the same dedicated hardware logic also performs inverse discrete cosine transforms on the video information received from the receive channel.

(Mehta Ex. A at claims 5, 13, 23) (emphasis added). The term "dedicated hardware logic" did not appear in the claims as originally filed and was only added during reexamination. Applicants appear to have added this limitation to avoid prior art

rejections by the Patent Office based on two prior art references, “Bose” and “Shimoda”, each of which disclosed video codec devices using general-purpose processors and separate hardware elements to perform discrete cosine transform (“DCT”) operations. Applicants “replaced the phrase ‘single engine’ with ‘dedicated hardware logic’ to more clearly define the invention.” (Mehta Ex. B at 13). Applicants further distinguished their invention from the prior art by pointing out that “Bose does not teach or suggest that dedicated hardware logic can or should be used for forward DCT or that the same dedicated hardware logic can be used for inverse DCT.” (Mehta Ex. B at 13-14). Applicants made the same distinction between their claimed invention and the Shimoda prior art reference:

Shimoda does not cure the defect of Bose. Indeed, Shimoda teaches that two separate and distinct pieces of hardware are used for forward and inverse DCT. Specifically, as Fig. 17 illustrates, Shimoda uses a forward DCT unit 13 and a separate inverse DCT unit 22. At the very least, the use of separate forward and inverse DCT hardware blocks complicates the design and implementation of the CODEC. Shimoda does not teach or suggest ***using the same dedicated hardware logic for forward and inverse DCT, or more importantly, how the design can be simplified to use the same dedicated hardware logic.***

(Mehta Ex. B at 14 (emphasis added)). Applicants specifically distinguished the circuitry of claim 13 from a device using a general-purpose processor: “[E]ven if one skilled in the art were to combine Bose with Shimoda as suggested by the Examiner, the invention of claim 13 would not result. Specifically, Bose implements forward and inverse DCT in *a general-purpose processor environment.*” (Mehta Ex. B at 13 (emphasis added)).

AVT’s proposed construction, which attempts to include general-purpose processors, disregards both the claim language and representations made during reexamination of the ‘788 patent. First, AVT ignores the claims’ use of the word “dedicated.” Under AVT’s broad construction, ***any*** circuitry within the video codec device could be considered “circuits or

circuitry . . . for the purpose of performing video compression and decompression.” By reciting “*dedicated* hardware logic”, the claims require circuitry dedicated to performing specific algorithms (such as discrete cosine transform)—and not generic circuitry used within a general-purpose processor. Indeed, the claim further states: “wherein the *same dedicated hardware logic* also performs inverse discrete cosine transforms.” (Mehta Ex. A at Amended Claim 5 (emphasis added)).

AVT’s proposed construction also fails to account for the disclaimers made by Applicants during reexamination; its proposed construction would include *any* device with circuitry performing the claimed functions, even those with “separate and distinct pieces of hardware” in a “general-purpose processor environment” similar to Bose and Shimoda. To avoid the prior art and to distinguish its invention, Applicants disclaimed coverage of any circuitry using general-purpose processors and separate hardware elements for various algorithmic functions. “[E]xplicit statements made by a patent applicant during prosecution to distinguish a claimed invention over prior art may serve to narrow the scope of the claim.” *Spectrum*, 164 F.3d at 1378. RIM’s proposed construction is consistent with Applicants’ representations, which require “dedicated hardware logic” to be construed as “integrated circuitry for performing specific tasks (*e.g.*, DCT/IDCT), as opposed to a general-purpose processor.”

B. “interim storage of incoming ... video data” (Claims 5, 13, and 26)

‘788 Claim Term	RIM’s Proposed Construction	AVT’s Proposed Construction
“interim storage of incoming ... video data”	“temporary storage of incoming unprocessed video data”	“temporary storage of video data prior to or during compression or decompression by the video codec”

The parties agree that “interim storage of . . . video data” refers to “temporary storage . . . of video data.” The parties dispute whether “incoming . . . video data” refers to “unprocessed”

data (RIM), or whether it may refer to data either “prior to *or during* compression and decompression” (AVT). RIM’s proposed construction – “temporary storage of incoming *unprocessed* video data” – properly interprets the term in accordance with the intrinsic evidence.

During reexamination of the ‘788 patent, Applicants distinguished their claimed invention from the Bose and Suzuki prior art references by clarifying that “interim storage” refers to storage of data *prior to processing*, rather than storage of data in an intermediate or partially processed phase. (Mehta Ex. C at 19 (explaining that the prior art did not “specify whether incoming/outgoing video data, as opposed to intermediate processed video data, is stored in the DRAM.”)). To avoid the Suzuki prior art, Applicants distinguished the claimed “interim storage” from the frame memory in Suzuki, which “provides storage for video data that is in *intermediate stages of processing* between being input and output.” (Mehta Ex. C at 16 (emphasis added)). Applicants also distinguished the claimed “interim storage” from the Bose prior art by stating that “Bose does not specify whether the input video data is buffered in the FIFO and passed directly into the DRAM, or whether the input video data is passed first to the processing components of the chip.” (Mehta Ex. C at 18; *see also id.* (Bose does not teach that “the incoming/outgoing video data passes from/to the video ports through an interface to/from DRAM for interim storage without first being processed by other components of the chip into intermediate processed video data.”)). In short, Applicants in an attempt to overcome the Patent Office’s rejections based on the prior art, repeatedly distinguished the claimed “interim storage” of unprocessed data, from storage of data in intermediate stages of processing.

RIM’s proposed construction properly interprets “interim storage of incoming...video data” to “temporary storage of incoming unprocessed video data” consistent with the Applicant’s representations to the Patent Office during reexamination. AVT’s construction, in contrast,

attempts to reclaim storage of partially processed data in intermediate stages of processing that Applicants disclaimed in attempting to avoid the prior art. Because of the prosecution history disclaimer, AVT may not reclaim partially processed data in its proposed construction of this term. *Spectrum*, 164 F.3d at 1378.

C. “video input data” (Claims 5, 13, 26)

‘788 Claim Term	RIM’s Proposed Construction	AVT’s Proposed Construction
“video input data”	“unprocessed video data”	“video data prior to compression by a video codec”

Similar to the term “interim storage of incoming ... video data,” discussed above in Section B, the parties dispute whether the term “video input data” includes only unprocessed video data (RIM) or whether it may include *any* video data prior to compression, even if partly processed (AVT). As discussed above, Applicants specifically disclaimed during reexamination coverage of a device in which video input data is not in unprocessed form. (*See* Mehta Ex. C at 19 (explaining that the prior art did not “specify whether incoming/outgoing video data, as opposed to intermediate *processed* video data, is stored in the DRAM.”)(emphasis added); *id.* at 16 (distinguishing the claimed “interim storage” from the frame memory, which “provides storage for video data that is in *intermediate stages of processing* between being input and output.”)(emphasis added)). Having surrendered coverage of a device in which video input data is partially processed or in an intermediate processed phase, AVT cannot reclaim such claim scope through the claim construction process. *Spectrum*, 164 F.3d at 1378. Accordingly, the Court should adopt RIM’s proposed construction, which adheres to the intrinsic evidence.

D. “interim storage of...outgoing video data” (Claims 5, 13, 23, 26)

‘788 Claim Term	RIM’s Proposed Construction	AVT’s Proposed Construction
“interim storage of...outgoing video data”	No construction. Term lacks written description support. If the Court finds adequate written description support: “temporary storage of video data that has been processed and is ready for output”.	“temporary storage of decompressed or compressed video data”

The parties dispute whether the term “interim storage of...outgoing video data” fails to meet the written description requirement of Section 112(1) of the Patent Act (RIM), or whether the term should be construed as “temporary storage of decompressed or compressed video data” (AVT). RIM’s position is consistent with the express determination by the Patent Office (discussed below) that the disclosure of the ‘788 patent “does not appear to support limitations directed to the *storing of the outgoing video* within the DRAM.” AVT’s position contradicts this determination and the representations made by the Applicants during prosecution.

The Patent Act requires every patent to provide an adequate written description of the invention:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

35 U.S.C. § 112. The written description requirement exists so as to “allow persons of ordinary skill in the art to recognize that [the inventor] invented what is claimed.” *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc) (internal quotations omitted). To obtain patent protection, applicants must sufficiently describe their invention. AVT has not met

this threshold condition for patentability with respect to the term “interim storage of...outgoing video data.”

During the reexamination of the ‘788 patent, the Patent Office rejected Applicants’ claims in light of the Suzuki and Bose prior art references. In an effort to distinguish these invalidating prior art references, Applicants attempted to add the phrase “wherein the outgoing video data is decompressed data supplied to the video output connection to the monitor” to the claims. (Mehta Ex. D at 3, 5, 8, 13). The Patent Office, however, determined that the ‘788 patent specification does not contain written description support for the interim storage of *outgoing* video data.

Specifically, the examiner contends that the instant disclosure, as originally filed, ***does not appear to support limitations directed to the storing of the outgoing video within the DRAM*** with respect to the video system embodiment of figures 1 and 2 (as set forth in the claims of the amended claims of the proposed amendment); i.e., wherein “outgoing” is construed as being limited to that video which is provided to the monitor.

(See Mehta Ex. E at 5 (emphasis added)). The Patent Office further determined that the disclosure of DRAM memory that provides storage of incoming and outgoing video data (Mehta Ex. A at 3:43-45) was insufficient to support Applicants’ proposed claim element regarding interim storage of outgoing video data. (Mehta Ex. E at 5-6 (“Specifically, the examiner contends that, taken alone, ***the description in lines 43-45 of column 3 is insufficient to support the recitation in question...***”)(emphasis added)). Moreover, the sole discussion of the operation of the interim storage buffer in the ‘788 patent relates to the storage of *incoming* video data, not *outgoing* video data. “The video input/output buffer (VP) 30 is such that the *incoming* pixels are buffered and stored in the external DRAM 18 for raster-scan-to-block conversion.” (Mehta Ex. A at 4:63-64 (emphasis added)). In response to the Patent Office’s determination that there was a lack of written description support, Applicants removed the phrase regarding the storage of

“outgoing video data” from the amended claims. (Mehta Ex. F at 3, 6, 8, 12 and 15 (“With respect to the first Supplemental Amendment After Final, the elements referring to storing outgoing video within the DRAM have been removed.”)).

Despite their representation to the Patent Office, the Applicants failed to remove “elements referring to storing outgoing video within the DRAM” from the portion of the claim now at issue. Just as the disclosure in the ‘788 patent specification was insufficient to support the claim elements regarding “storing of the outgoing video within the DRAM” at issue during the reexamination, it is insufficient to support the term “interim storage of...outgoing video data” in the present claim element. Thus, just as the Patent Office determined that the ‘788 patent lacks written description support for “the storing of the outgoing video within the DRAM”, this Court should find that the ‘788 patent lacks support under Section 112(1) for the phrase “interim storage of...outgoing video data.”

If, despite the Patent Office’s determination, the Court were to conclude that the ‘788 patent provides adequate support for the phrase “interim storage of...outgoing video data,” AVT’s proposed construction should still be rejected on the grounds that it is inconsistent with other portions of the prosecution history. Although RIM contends that the term “interim storage of...outgoing video data” cannot be construed, because (as the Patent Office determined) there is insufficient support for interim storage of outgoing video data, any phrase including the term “outgoing video data” would have to be construed in a manner consistent with Applicants’ statements during prosecution in which they provided an express definition of “outgoing video data.” In response to the Patent Office’s rejection of the pending claims in the reexamination, Applicants distinguished the Bose prior art reference and offered an express definition of “outgoing video data”: “by its nature outgoing video data *is already processed and* is indeed

ready to be output.” (Mehta Ex. C at at 19 (emphasis added)). Applicants expressed a clear intent to define the term “outgoing video data” by using the word “is” and by professing to identify the very “nature” of “outgoing video data.” Thus, although there is no written description support in the ‘788 patent specification for the “interim storage of...outgoing video data,” such data *by its very nature* must be “processed and ready for output.”

E. “quantization” (Claim 5, 13, 23, 26)

‘788 Claim Term	RIM’s Proposed Construction	AVT’s Proposed Construction
“quantization”	“a process in which the continuous range of values of an input signal is divided into non-overlapping subranges, and to each subrange a discrete value of the output is uniquely assigned”	“conversion of data from a relatively large set to a smaller and discrete set”

The parties dispute whether “quantization” – undefined in the specification of the ‘788 patent – should be construed consistently with how the term is commonly used in the field of the ‘788 patent according to an industry-standard dictionary definition (RIM), or whether the term should be defined in a manner wholly inconsistent with any known intrinsic or extrinsic evidence (AVT). RIM’s proposed construction defines “quantization” as a person of ordinary skill in the art would have understood it in the context of the ‘788 patent.

The term “quantization” is commonly used and well-understood in the field of electronics. RIM’s proposed construction is adopted directly from the IEEE dictionary, a commonly used dictionary in the field of electronics: “[a] process in which the continuous range of values of an input signal is divided into nonoverlapping subranges, and to each subrange a discrete value of the output is uniquely assigned.” (Mehta Ex. G at 766). Because the intrinsic evidence does not shed any light on the meaning of the term “quantization,” the Court may properly consider extrinsic evidence, like the IEEE dictionary, to construe the claim. *Phillips*,

415 F.3d at 1317-19 (finding technical dictionaries helpful because they allow “a court ‘to better understand the underlying technology’ and the way in which one of skill in the art might use the claim terms.”) (internal citations omitted). RIM’s proposed dictionary definition, from the Institute of Electrical and Electronics Engineers (the electronics industry’s largest professional association), provides the appropriate understanding of the term to a person of ordinary skill in the art.

In contrast, AVT’s construction is not supported by any intrinsic evidence addressing the term “quantization” (because none exists), nor by any citation to any extrinsic evidence. Instead, AVT’s construction is an attempt to transform a precise and well-understood technical term into a broad and non-descript phrase without any clear-cut meaning (“conversion of data from a relatively large set to a smaller and discrete set”). AVT’s proposed construction unnecessarily injects ambiguity into the claims, by introducing undefined and subjective terms such as “relatively large.” AVT’s proposed construction will be of no assistance to the jury when it is faced with the difficult task of comparing the technical claim terms to the accused video codec devices. The Court should reject AVT’s construction and adopt RIM’s, which relies on a reputable extrinsic source to provide the understanding of a person of ordinary skill in the art.

F. “video compressor/decompressor disposed fully within the chip” (Claims 5, 13, 23, 26)

‘788 Claim Term	RIM’s Proposed Construction	AVT’s Proposed Construction
“video compressor/decompressor disposed fully within the chip”	No construction required. The term can be understood by a person of ordinary skill in the art by its plain and ordinary meaning.	“circuitry located entirely within the chip for video compression and decompression”

The parties dispute whether this term can be understood by a person of ordinary skill in the art according to its plain and ordinary meaning (RIM), or whether this term requires

construction (AVT). The language of the term is descriptive, claiming a “video compressor/decompressor” that is “disposed fully within the chip.” No further construction is required to understand the plain words “disposed fully within the chip.” Accordingly, RIM proposes no construction.

AVT’s proposed construction unnecessarily rewrites, and impermissibly broadens, the claim language. By replacing the phrase “video compressor/decompressor” with the potentially broader phrase “circuitry...for video compression and decompression,” AVT attempts to cover devices in which only some portions of the “video compressor/decompressor” circuitry are inside the chip, while other portions may be *outside* the chip. AVT’s proposed definition contradicts the plain language of the claim, which requires the “video compressor/decompressor” to be “disposed *fully* within the chip.” Because the plain language requires the entire video compressor/decompressor to be fully within the chip, and AVT’s definition appears to allow relevant circuitry to be outside the chip, AVT’s definition should be rejected. *See Vitronics*, 90 F.3d at 1582 (“First, we look to the words of the claims themselves, both asserted and nonasserted, to define the scope of the patented invention.”); *see also K-2 Corp. v. Salomon S.A.*, 191 F.3d 1356, 1364 (Fed. Cir. 1999) (“Courts do not rewrite claims; instead, we give effect to the terms chosen by the patentee.”).

G. "video input connection" and "a video input connection from a camera" (Claims 5, 13, 26)

'788 Claim Term	RIM's Proposed Construction	AVT's Proposed Construction
"video input connection"	"input for receiving analog video signals provided by a camera"	"one or more external connection pins or ports for receiving video data"
"a video input connection from a camera"	"an input for receiving analog video signals provided by a camera"	"one or more external connection pins or ports for receiving video data from a camera"

The primary dispute regarding these terms is whether data received by "a video input connection" is analog data (RIM), or whether the data may be digital (AVT). As the relevant intrinsic evidence demonstrates, the '788 patent requires that analog data be received by an input connection, not digital data.

During prosecution, Applicants stated to the Patent Office that the claimed "video data" had to be an analog signal received from a camera. (Mehta Ex. H at 13 ("The *claimed* present invention receives the incoming video and then *samples and digitizes it*, does intra and inter-frame compression, then quantization, and run-length coding.")(emphasis added)). Applicants thus expressly defined their claimed invention as first receiving incoming video data, and then converting that data from analog to digital form. (See Mehta Ex. G at 264 ("digitize (mathematics of computing) To express analog data in digital form")). As Applicants stated, for the invention to function, the video input *must* be "sampled and digitized." (Mehta Ex. H at 13). Consequently, the video input *must* be analog, because only analog data can be digitized.

In the Notice of Intent to Issue Ex Parte Reexamination Certificate (NIRC), the patent examiner noted that the Suzuki prior art disclosed "*blocks of image data* and not video signal data in raster scan format." (Mehta Ex. I at 2 (emphasis in original)). The patent examiner thus

noted that, unlike the prior art's use of digital blocks of data, the '788 patent requires video signal data in analog raster-scan format. The examiner further "agree[d] with the Patent Owner that [the specification] clearly teaches: 1) That the signals being provided from the 'NTSC-compatible or PAL-compatible camera' (@ 14) of figure 1 are of a raster-scan format and, as such, that these signals must be converted to a 'block' format prior to encoding." (Mehta Ex. I at 3-4). Thus Applicants represented, and the patent examiner understood, that the claims require analog signals (such as NTSC or PAL signals).

RIM's construction is further supported by the patent specification. At column 3, lines 41 to 43, the specification indicates that the video codec chip "is connected *to receive a video input for a NTSC-compatible or PAL-compatible camera* 14 and a monitor 16." (emphasis added). According to the '788 patent disclosure, the video inputs are television signals from a NTSC-compatible or PAL-compatible camera, which are known to be analog signals. (Mehta Ex. A at 3:41-43)("NTSC' and 'PAL' are respective television-broadcast standards used in the United States and Europe.)); *TiVo, Inc. v. EchoStar Communications Corp.*, 516 F.3d 1290, 1294-5 (Fed. Cir. 2008) ("The most common format for analog television signals in the United States is the National Television Standards Committee ("NTSC") standard. The corresponding European broadcast standard for analog television signals is Phase Alternating Line ("PAL")."). Accordingly, the Court should reject AVT's proposed construction, which impermissibly broadens the scope of the claims beyond the intrinsic record.

H. “video information received from said [or the] video input connection” and “video input data from the video input connection” (Claims 5, 13, 26)

‘788 Claim Term	RIM’s Proposed Construction	AVT’s Proposed Construction
“video input data from the video input connection”	“unprocessed analog video signals provided by a camera”	“video data prior to compression by a video codec received at one or more external connection pins or ports”
“video information received from said [or the] video input connection”	“unprocessed analog video signals provided by a camera”	“video data prior to or during compression by a video codec received at one or more external connection pins or ports”

Both parties agree that these terms should be construed as combinations of the terms “video input data” (or “video information”) and “video input connection”. The parties dispute the proper definition of these terms as set forth above in Sections B, C and G.

V. CONCLUSION

For the foregoing reasons, RIM respectfully requests that the Court adopt RIM’s proposed constructions.

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Respectfully submitted,

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